Encouraging future programmers

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The problem

• Difficult to teach programming at University
  – It is often too late

• Students find programming difficult
  – Computers are needed for complex problems
  – Often, not possible to buy software
  – Students that cannot program miss opportunities
At school

Word processing

![Word processing screenshot](image1)

Web surfing

![Web surfing screenshot](image2)

Spreadsheet? HTML?

When I grow up I will learn to program.

I will learn to program.
At home
1. Insert SD card
   See page 3 for how to prepare the SD card

2a. Connect display
   Plug in your digital TV or monitor

2b. Connect display
   If not using HDMI, plug in your analogue TV or display

3. Connect input
   Plug in a USB keyboard and mouse

4. Connect network
   Connect to your wired network [optional]
Connections

- **SPI** (Serial Peripheral Interface)
- **PWM** (Modulation de largeur d'impulsion)
- **2x I²C** (Inter-Integrated Circuit)
- **UART** (Universal Asynchronous Receiver Transmitter)
- **2x USB**
- **HDMI, Audio, Video**
Operating systems

RISC OS

arch linux

Development:
- Android
- Debian
- FreeBSD
- Gentoo
- NetBSD
- openSUSE
- Plan 9
- Puppy

Raspbian

Raspbmc
Other single board computers

- Gooseberry
- AMD Gizmo
- Intel Galileo
- Cubieboard
- BeagleBone
Raspberry Pi at CERN